

# **UNIFORM STANDARD DETAILS**

**for**

## **PUBLIC WORKS CONSTRUCTION**

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**1998  
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**(Includes Revisions Through 2005)**



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DETAIL NO.

**100-1**



**STANDARD DETAIL  
ENGLISH**

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**100-1**

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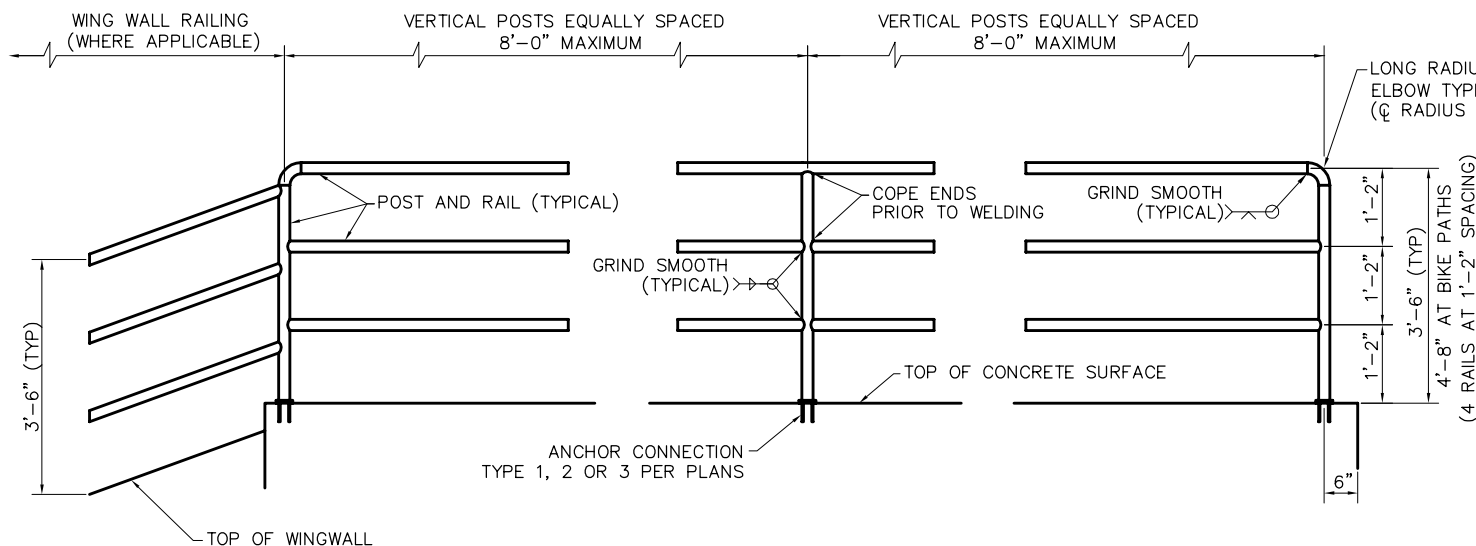
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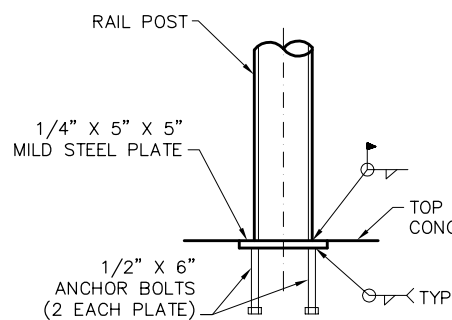
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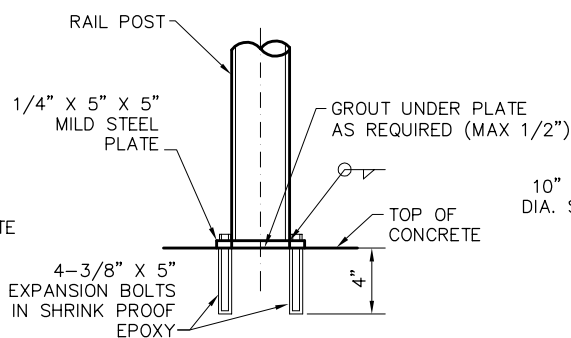


## ELEVATION



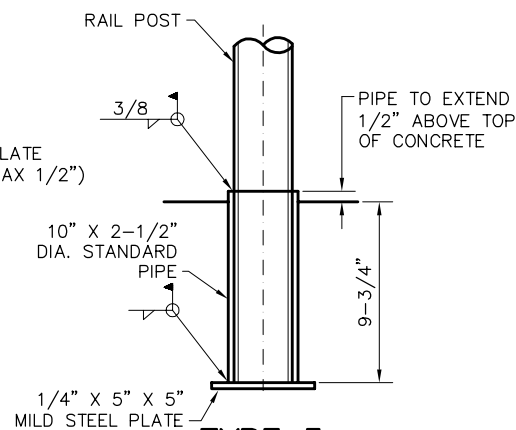
### TYPE 1

ANCHOR PLATE DETAIL



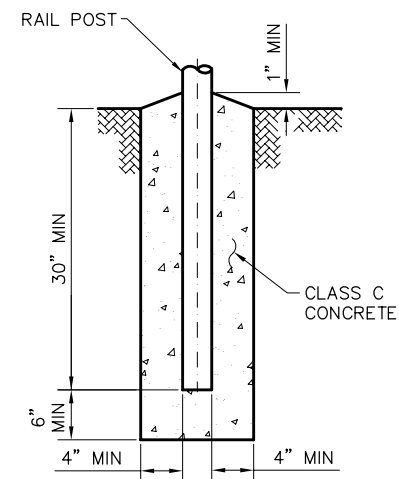
### TYPE 2

EXPANSION BOLT DETAIL



### TYPE 3

PIPE SLEEVE DETAIL



### TYPE 4

GROUND INSTALLATION DETAIL

## NOTES:

1. POSTS AND RAILS SHALL BE 1.5" SCHEDULE 40 HOT-DIPPED GALVANIZED STEEL PIPE ASTM A 53, GRADE A (2.72 #/LF, 1.9" O.D.). GALVANIZING SHALL BE IN ACCORDANCE WITH SECTION 771.
2. PAINT RAIL PER MAG SPECIFICATIONS SECTION 530 WHEN REQUIRED BY PLANS. SHOP PRIME WITH RUST INHIBITING PRIMER (FIELD REPAIR PRIMER AS NEEDED). COLOR PER PLANS.
3. VERTICAL POSTS TO BE EVENLY SPACED.
4. REMOVE ALL SHARP EDGES.
5. INSTALL SAFETY RAIL AS REQUIRED BY PLANS OR SPECIFICATIONS.

DETAIL NO.

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**STANDARD DETAIL  
ENGLISH**

**SAFETY RAIL**

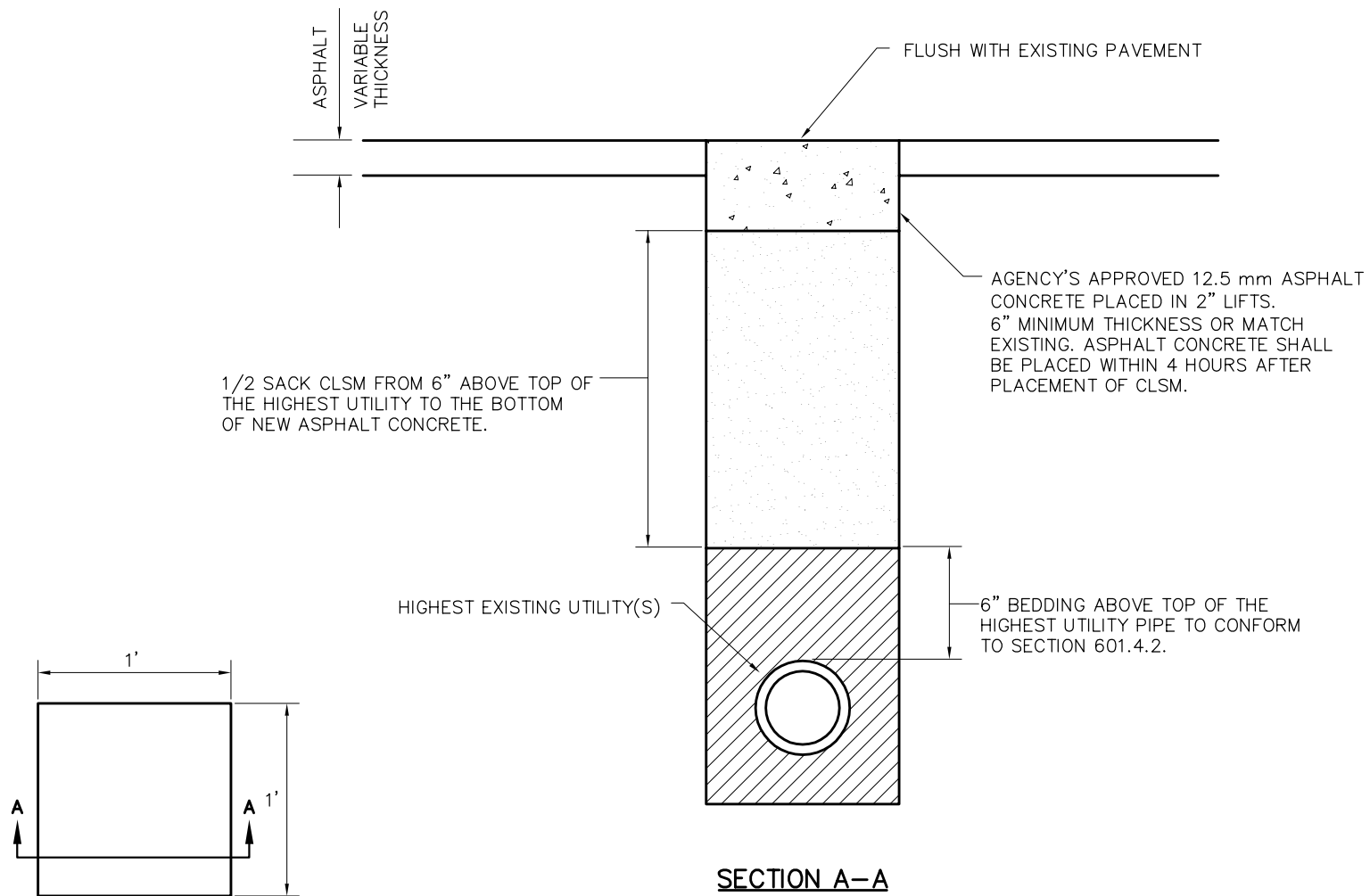
REVISED

01-01-2005

DETAIL NO.

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**POTHOLE PLAN VIEW**

(NOMINAL DIMENSIONS)

DETAIL NO.

**212**



**STANDARD DETAIL  
ENGLISH**

**UTILITY POTHOLE REPAIR**

REVISED

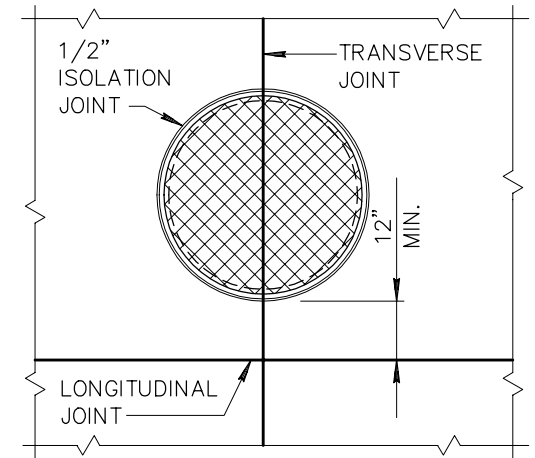
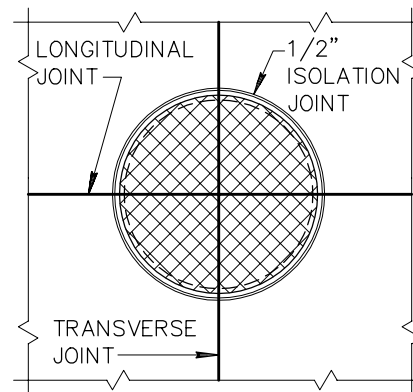
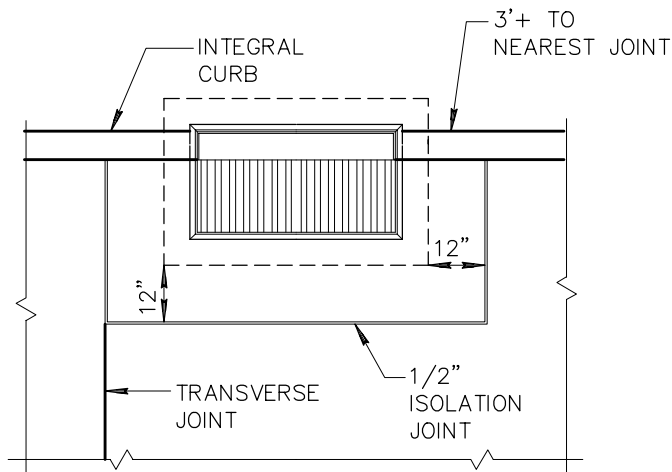
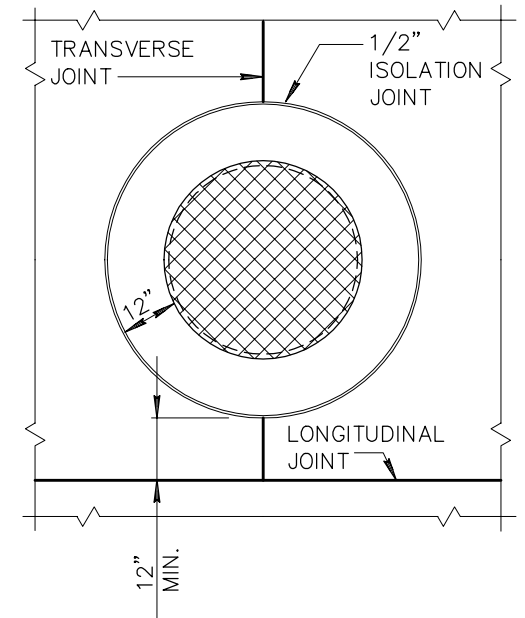
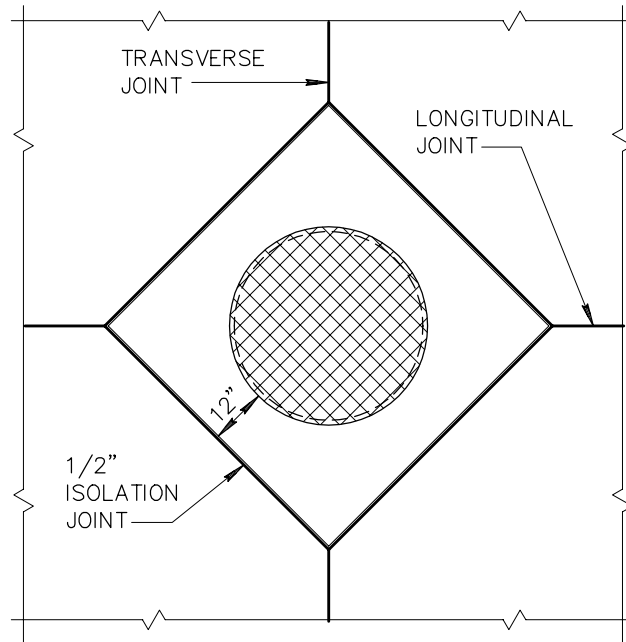
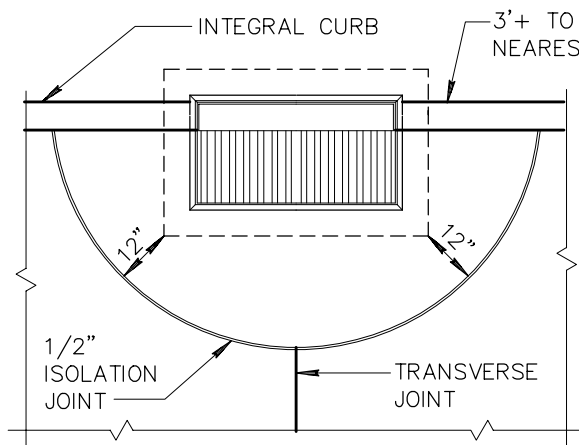
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DETAIL NO.

**212**

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DRAINAGE INLET

MANHOLE COVERS

MANHOLE COVERS

DETAIL NO.

224



MARICOPA  
ASSOCIATION of  
GOVERNMENTS

STANDARD DETAIL  
ENGLISH

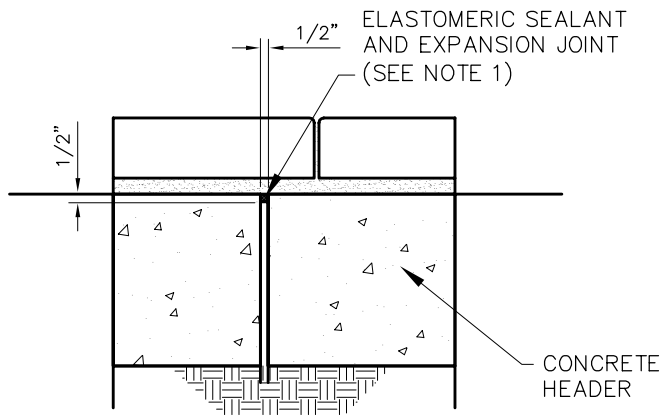
JOINT FOR DRAINAGE INLETS  
AND MANHOLE COVERS

REVISED

DETAIL NO.

224

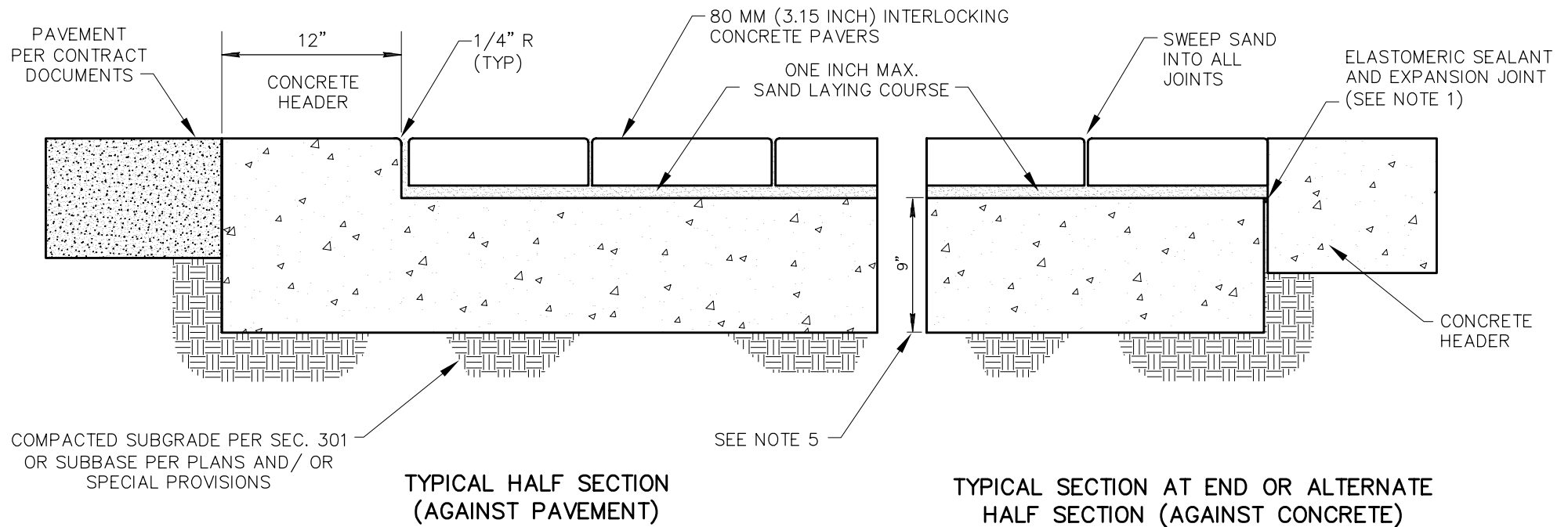
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EXPANSION JOINT DETAIL

## NOTES:

1. 1/2 INCH EXPANSION JOINT, ASTM D-1751 PER SEC. 729 AND ELASTOMERIC SEALANT PER SEC. 342
2. CONTRACTION JOINTS PER SEC. 342
3. MATERIALS AND CONSTRUCTION PER SEC. 342
4. PORTLAND CEMENT CONCRETE SHALL BE CLASS A
5. DESIGN PARAMETERS FOR THE THICKNESS IS BASED ON:  
ASSUMES MODULUS OF SUBGRADE REACTION ( $K$ ) = 100 pci  
CONCRETE WORKING STRESS ( $f_1$ ) = 300 psi  
TERMINAL SERVICABILITY INDEX ( $p_1$ ) OF 2.5 OVER 20 YEARS  
AND 1 MILLION TOTAL EQUIVALENT 18-KIP SINGLE-AXLE  
LOAD APPLICATIONS



DETAIL NO.

225



STANDARD DETAIL  
ENGLISH

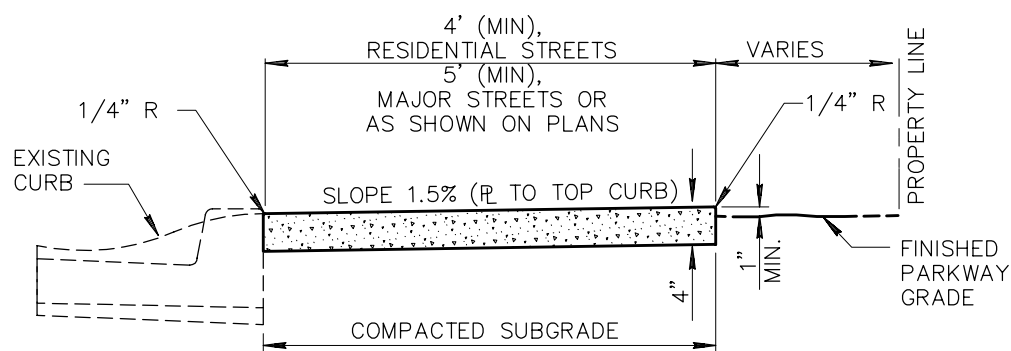
CONCRETE PAVERS

REVISED

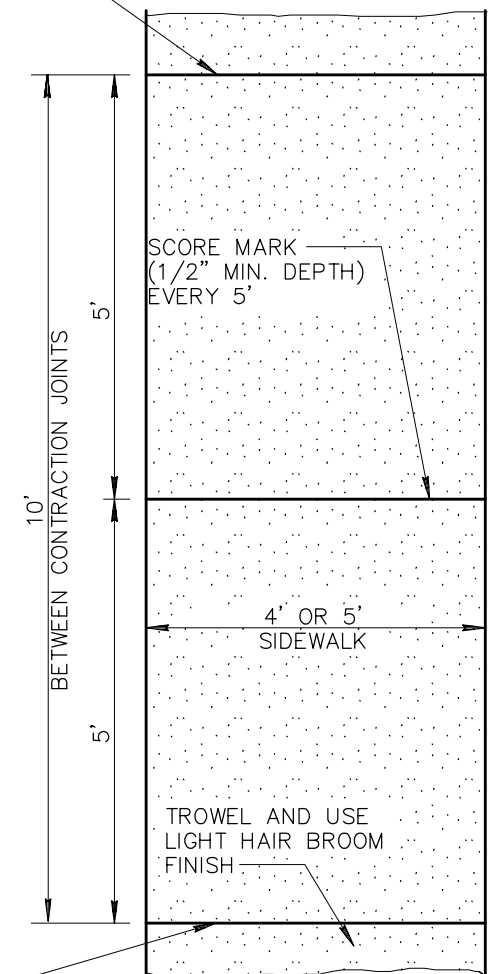
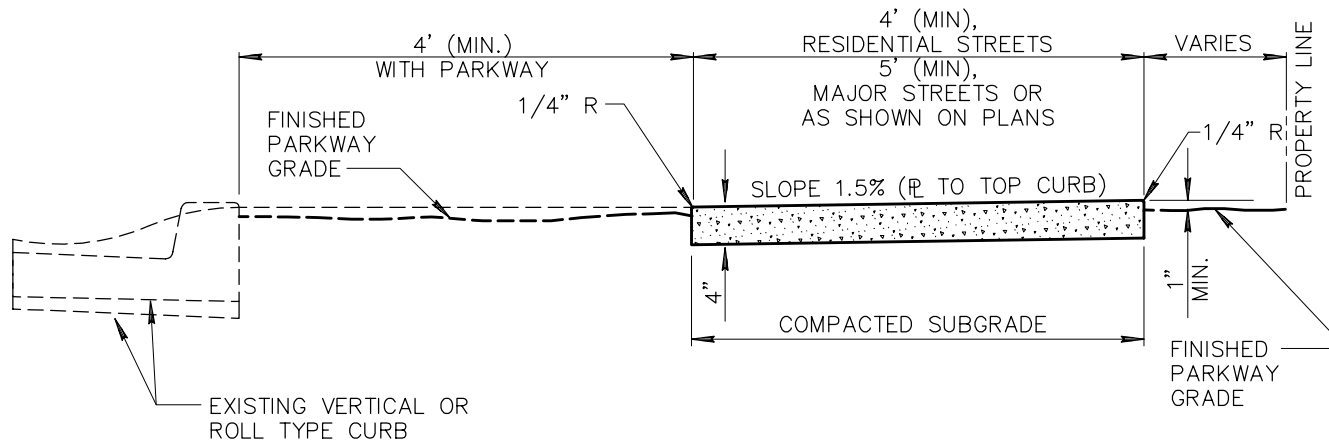
01-01-2005

DETAIL NO.

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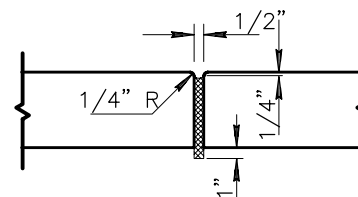


CURB AND GUTTER  
CONTRACTION JOINT  
SHALL MATCH  
SIDEWALK JOINT

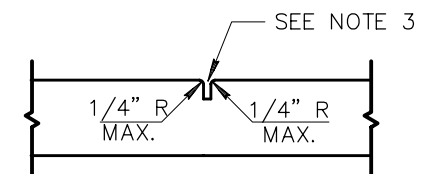


## NOTES:

1. SIDEWALK CONSTRUCTION SHALL CONFORM TO SECT. 340.
2. EXPANSION JOINTS SHALL BE 1/2" BITUMINOUS TYPE PREFORMED EXPANSION JOINT FILLER, A.S.T.M. D-1751.
3. LARGE AGGREGATE, IN CONTRACTION JOINT, SHALL BE SEPARATED TO A DEPTH OF 1", FINISH DEPTH SHALL BE A MINIMUM OF 3/4".
4. EXPANSION JOINT 50' MAXIMUM SPACING PER SECT. 340.
5. CLASS 'B' CONCRETE CONSTRUCTION AS PER SECT. 725.



EXPANSION JOINT



CONTRACTION JOINT

DETAIL NO.

230



STANDARD DETAIL  
ENGLISH

SIDEWALKS

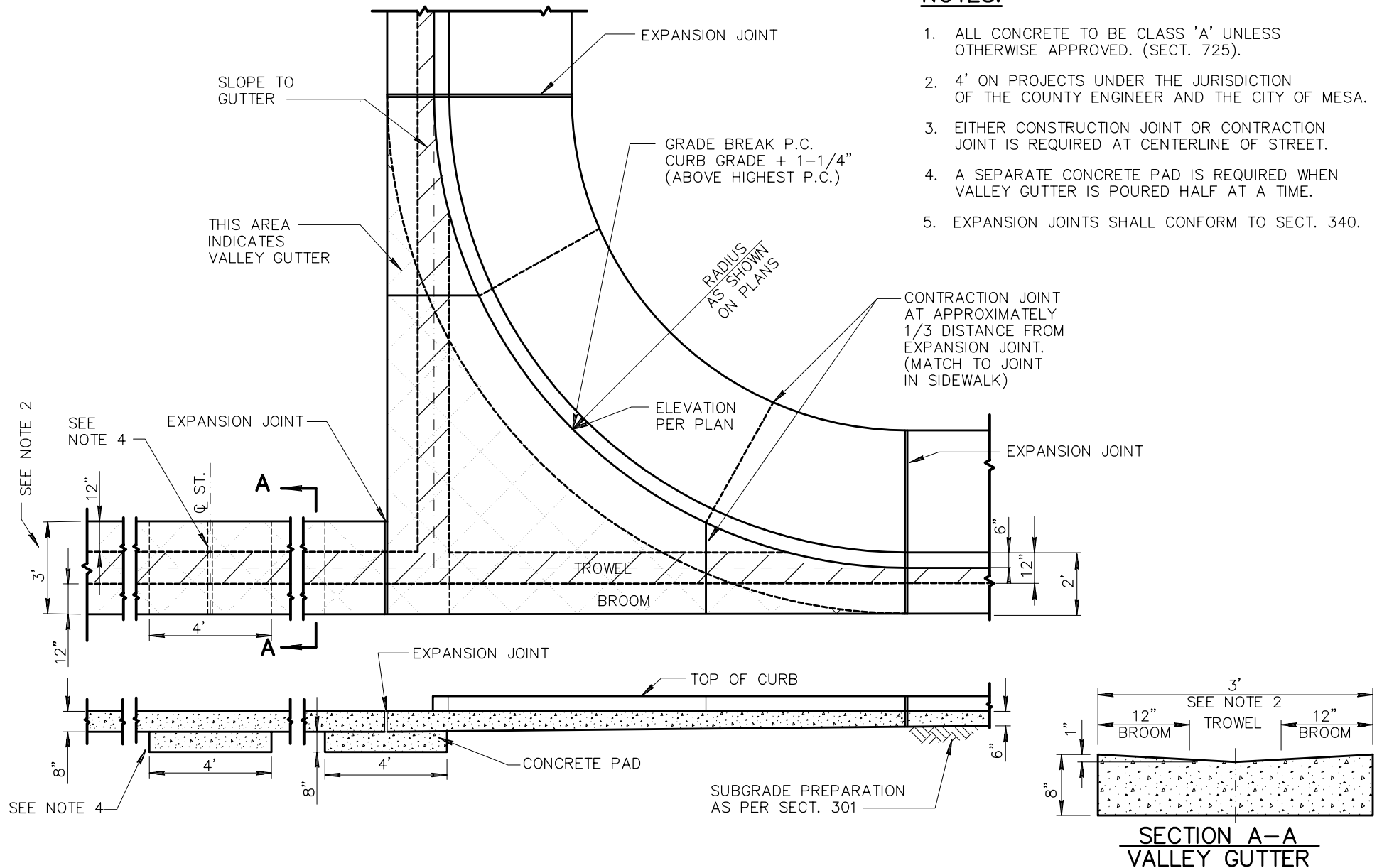
REVISED  
01-01-2003

DETAIL NO.

230

## NOTES:

1. ALL CONCRETE TO BE CLASS 'A' UNLESS OTHERWISE APPROVED. (SECT. 725).
2. 4' ON PROJECTS UNDER THE JURISDICTION OF THE COUNTY ENGINEER AND THE CITY OF MESA.
3. EITHER CONSTRUCTION JOINT OR CONTRACTION JOINT IS REQUIRED AT CENTERLINE OF STREET.
4. A SEPARATE CONCRETE PAD IS REQUIRED WHEN VALLEY GUTTER IS POURED HALF AT A TIME.
5. EXPANSION JOINTS SHALL CONFORM TO SECT. 340.



DETAIL NO.

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STANDARD DETAIL  
ENGLISH

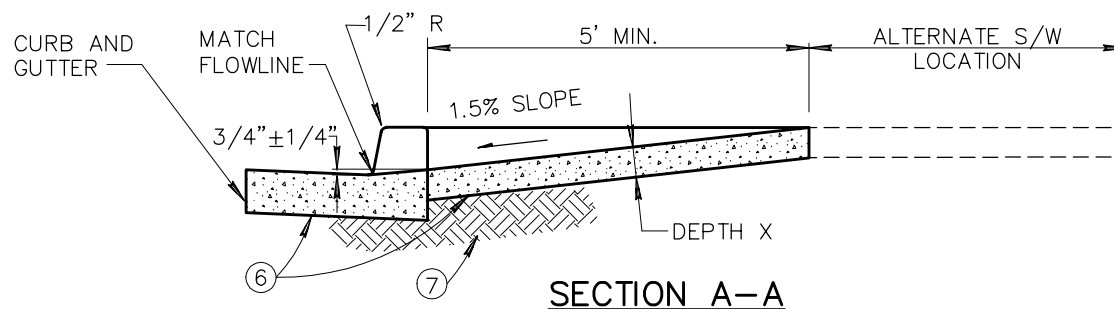
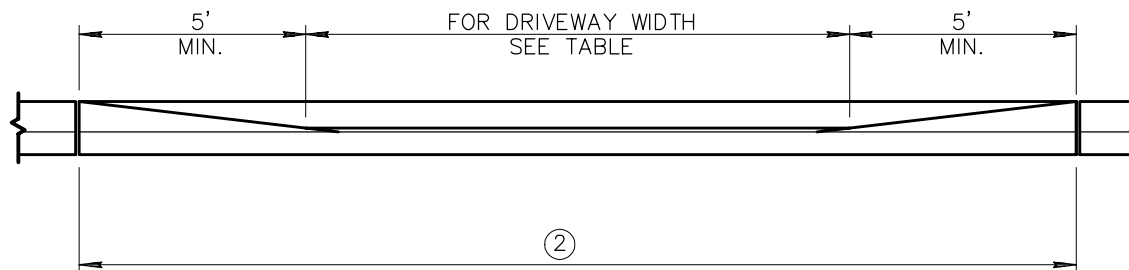
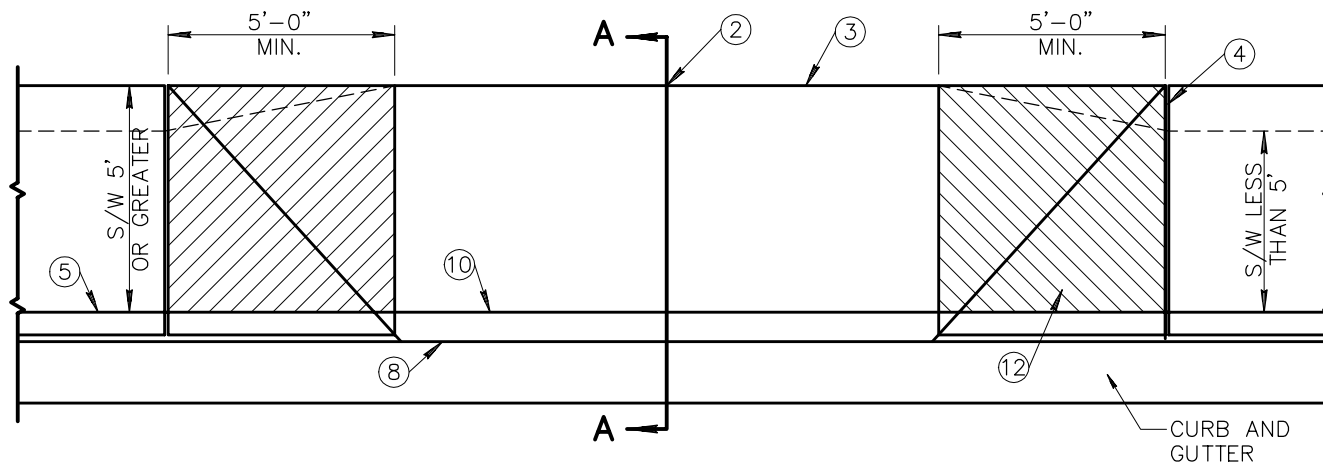
VALLEY GUTTER

REVISED

01-01-2003

DETAIL NO.

240



SECTION A-A

## NOTES:

1. DEPRESSED CURB SHALL BE PAID FOR AT THE UNIT PRICE BID FOR THE TYPE OF CURB USED AT THAT LOCATION.
2. WHEN WIDTH EXCEEDS 22' PROVIDE A CONTRACTION JOINT ON D/W CENTERLINE.
3. BACK OF D/W OR FACE OF FUTURE S/W.
4. EXPANSION JOINTS SHALL COMPLY WITH SECTION 340.
5. BACK OF CURB - CONSTRUCTION JOINT OR SCORE MARK.
6. CLASS 'B' CONCRETE, SECT. 725.
7. SUBGRADE PREPARATION, SECT. 301.
8. FLOW LINE OF GUTTER.
9. DEPRESSED CURB.
10. SECT. A-A AND ELEVATION, D/W VERTICAL CURB AND GUTTER OR ROLL TYPE CURB AND GUTTER.
11. ROLL TYPE CURB AND GUTTER NOT PERMITTED IN THE CITY OF MESA
12. 1/4" GROOVES AT 1" O.C. FULL WIDTH OF 5' WARP SECTION, EACH SIDE OF DRIVEWAY. SEE DETAIL NO. 1 ON TYPE 'D' RAMP DETAIL NO. 234.

## COMMERCIAL AND INDUSTRIAL

DRIVEWAY WIDTH	MIN.	MAX.	CLASS	DEPTH <sup>x</sup>
COMMERCIAL	* 16'	40'	B	6"
INDUSTRIAL	* 16'	40'	B	6"
* 24' MIN. FOR TWO WAY TRAFFIC				

## RESIDENTIAL

DRIVEWAY WIDTH	MIN.	MAX.	CLASS	DEPTH <sup>x</sup>
MAJOR STREET	16'	30'	B	5"
COLLECTOR STREET	* 12'	30'	B	5"
LOCAL STREET	12'	30'	B	5"
* 16' DESIRABLE				

DETAIL NO.

250



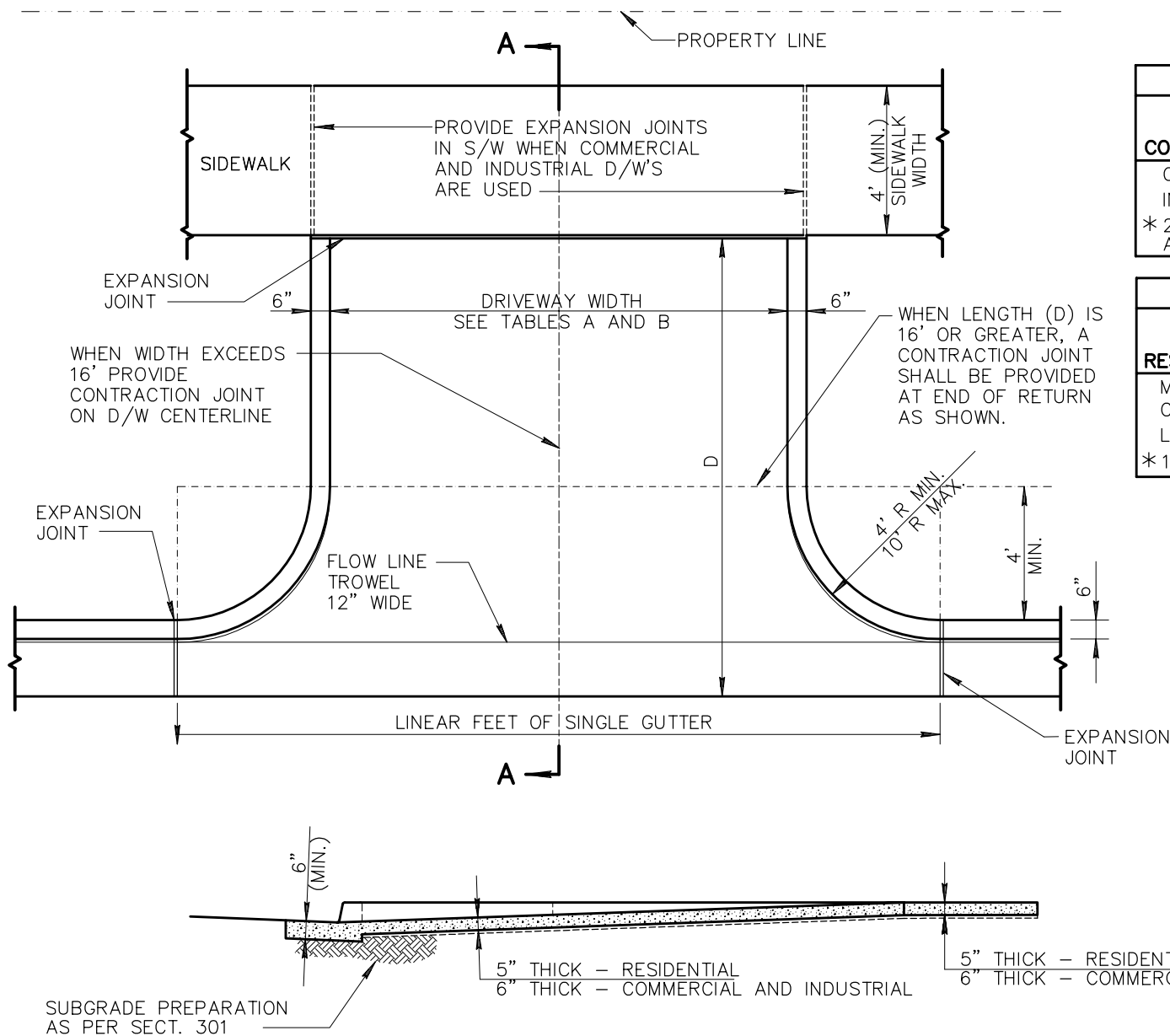
STANDARD DETAIL  
ENGLISH

DRIVEWAY ENTRANCES

REVISED  
01-01-2005

DETAIL NO.

250



**SECTION A-A**

TABLE A		
ZONING	DRIVEWAY WIDTH	
	MIN.*	MAX.
COMMERCIAL AND INDUSTRIAL		
COMMERCIAL	16'	40'
INDUSTRIAL	16'	40'
* 24' WHERE 2-WAY TRAFFIC IS ANTICIPATED		

TABLE B		
ZONING	DRIVEWAY WIDTH	
	MIN.*	MAX.
RESIDENTIAL		
MAJOR STREET	16'	30'
COLLECTOR STREET	12'	30'
LOCAL STREET	12'	30'
* 16' WIDTH IS DESIRABLE		

**NOTES:**

1. EXPANSION JOINTS SHALL COMPLY TO SECTION 340.
2. THIS TYPE D/W TO BE USED ONLY UPON APPROVAL OF ENGINEER.
3. CLASS 'B' CONCRETE CONSTRUCTION AS PER SECT. 725

DETAIL NO.

**251**



**STANDARD DETAIL  
ENGLISH**

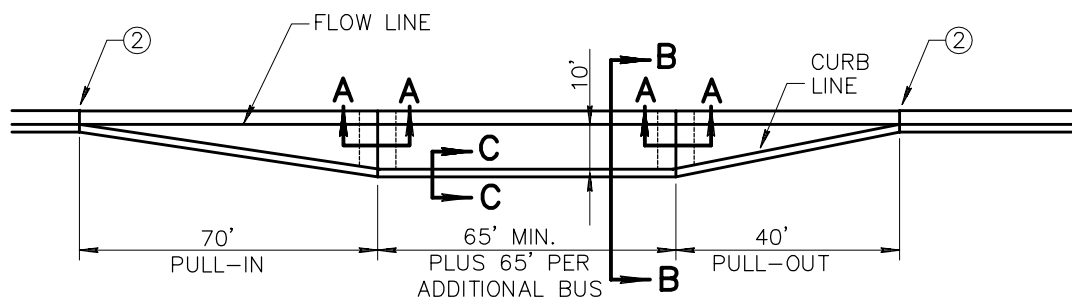
**RETURN TYPE DRIVEWAYS**

REVISED

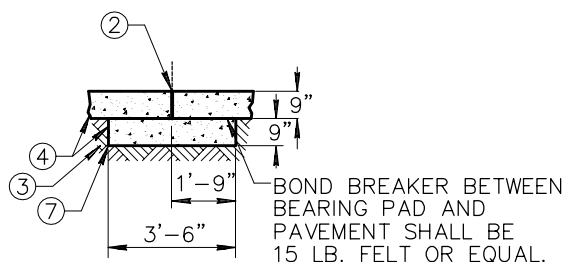
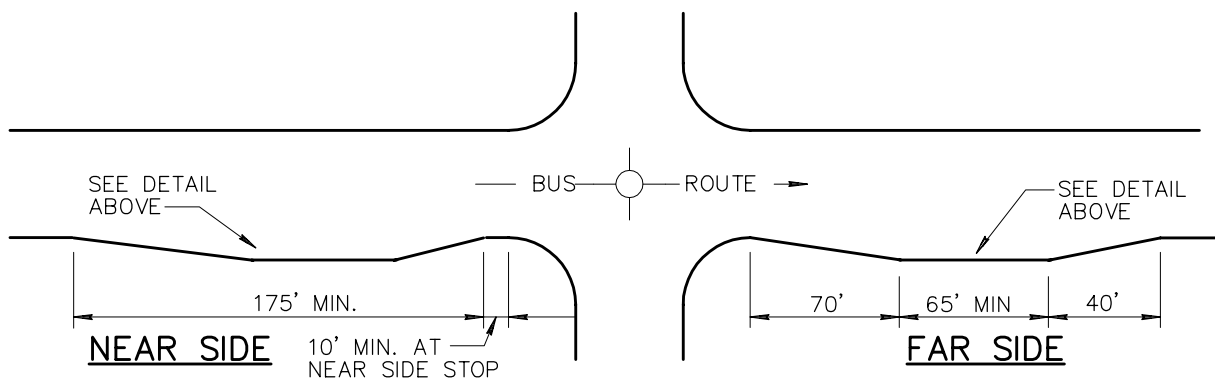
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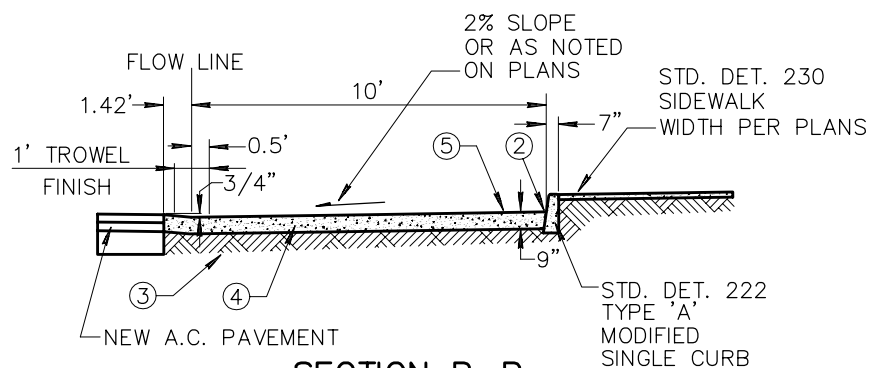
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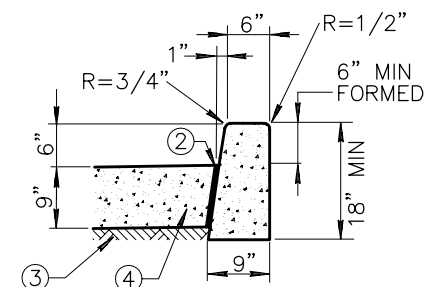
**DETAIL**



**SECTION A-A**



**SECTION B-B**



**SECTION C-C**

STD. DET. 222 TYPE 'A' MODIFIED SINGLE CURB

**NOTES:**

1. SUFFICIENT RIGHT-OF-WAY MUST BE AVAILABLE TO CONSTRUCT THE BUS BAY.
2. 1/2" BITUMINOUS PREFORMED EXPANSION JOINT FILLER ASTM D-1751 PER SPECIFICATION SECTION 729.
3. SUBGRADE PREPARATION PER SPECIFICATION SECTION 301 COMPACTED TO 95% MINIMUM DENSITY.
4. CONCRETE SHALL BE CLASS 'A' PER SPECIFICATION SECTION 725.
5. CONCRETE BUS BAY PAVEMENT SHALL BE BROOM FINISHED, EXCEPT WHERE OTHERWISE NOTED.
6. CONTRACTION JOINTS IN THE BUS BAY PAVEMENT SHALL MATCH THOSE IN THE CURB, 15 FT. MAXIMUM SPACING.
7. CONCRETE BEARING PAD (SECTION A-A) TO BE POURED SEPARATELY FROM CONCRETE BUS BAY PAVEMENT.

DETAIL NO.

**252**



**STANDARD DETAIL  
ENGLISH**

**BUS BAYS**

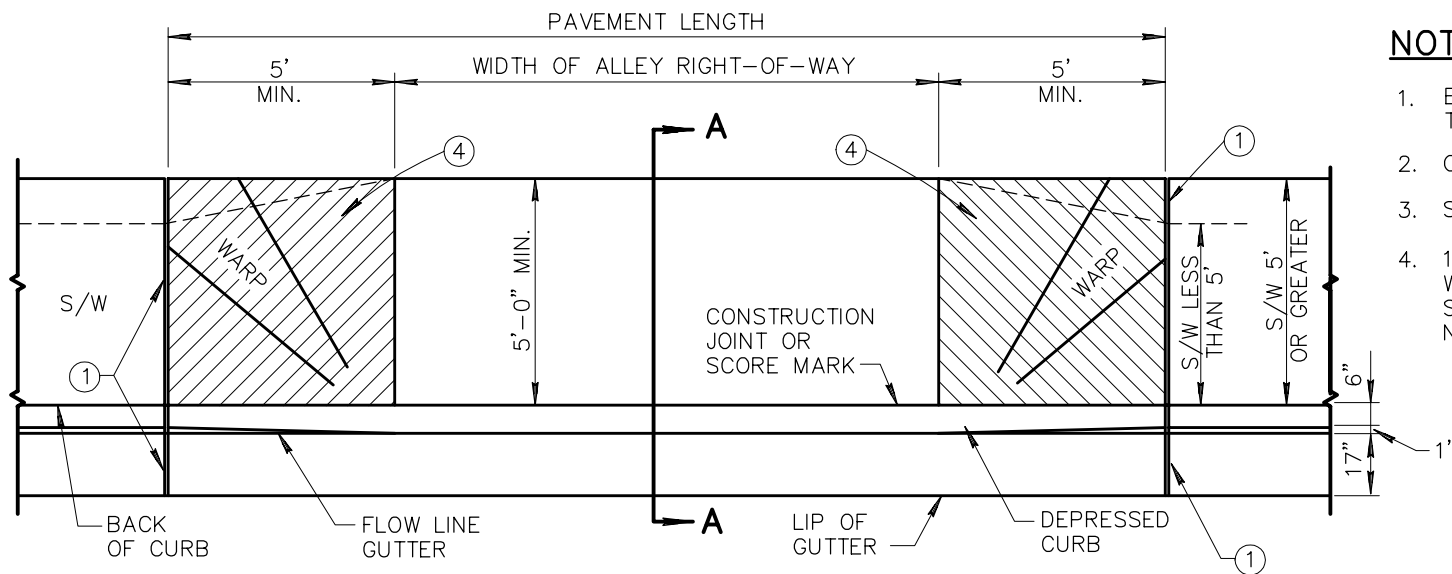
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01-01-2005

DETAIL NO.

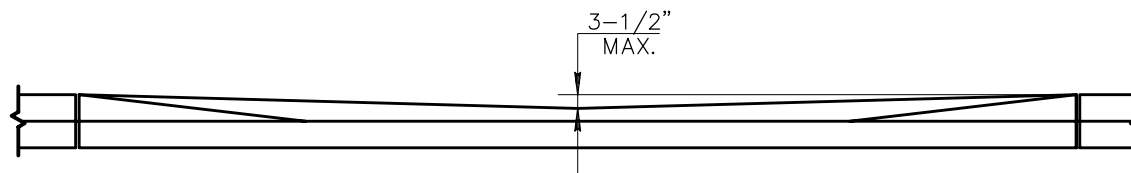
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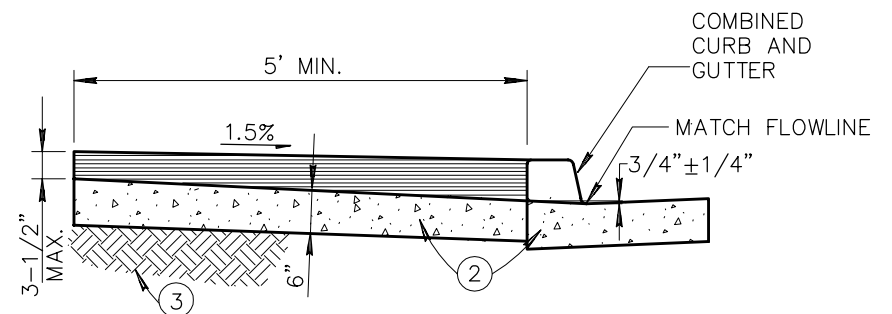


### NOTES:

1. EXPANSION JOINTS SHALL CONFORM TO SECTION 340.
2. CLASS 'B' CONCRETE, PER SECT. 725.
3. SUBGRADE PREPARATION, PER SECT. 301.
4. 1/4" GROOVES AT 1" O.C. FULL WIDTH OF 5' WARP SECTION, EACH SIDE OF ALLEY ENTRANCE. SEE DETAIL NO. 1 ON TYPE 'D' RAMP DETAIL NO. 234.



ELEVATION



SECTION A-A

DETAIL NO.

260



**STANDARD DETAIL  
ENGLISH**

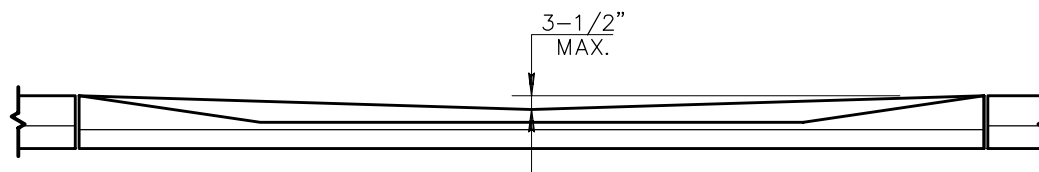
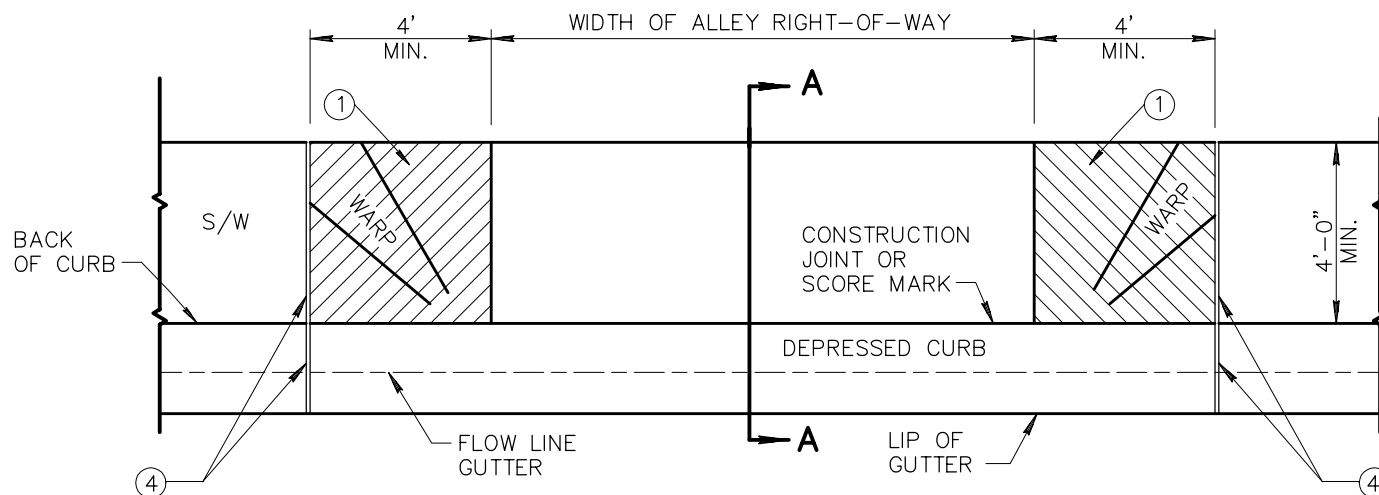
**ALLEY ENTRANCE  
(WITH COMBINED CURB AND GUTTER)**

REVISED

01-01-2005

DETAIL NO.

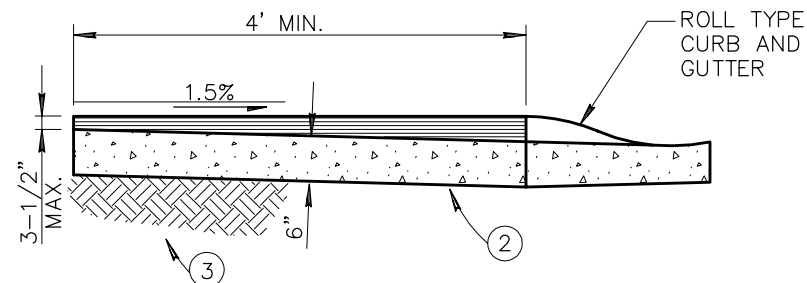
260



ELEVATION

**NOTES:**

1. 1/4" GROOVES AT 1" O.C. FULL WIDTH OF 4' WARP SECTION, EACH SIDE OF ALLEY ENTRANCE. SEE DETAIL NO. 1 ON TYPE 'D' RAMP DETAIL 234.
2. CLASS 'B' CONCRETE CONSTRUCTION PER SECT. 725.
3. SUBGRADE PREPARATION, PER SECT. 301.
4. EXPANSION JOINTS SHALL CONFORM TO SECT. 340.



SECTION A-A

DETAIL NO.

**261**



**STANDARD DETAIL  
ENGLISH**

**ALLEY ENTRANCE  
(WITH ROLL TYPE CURB AND GUTTER)**

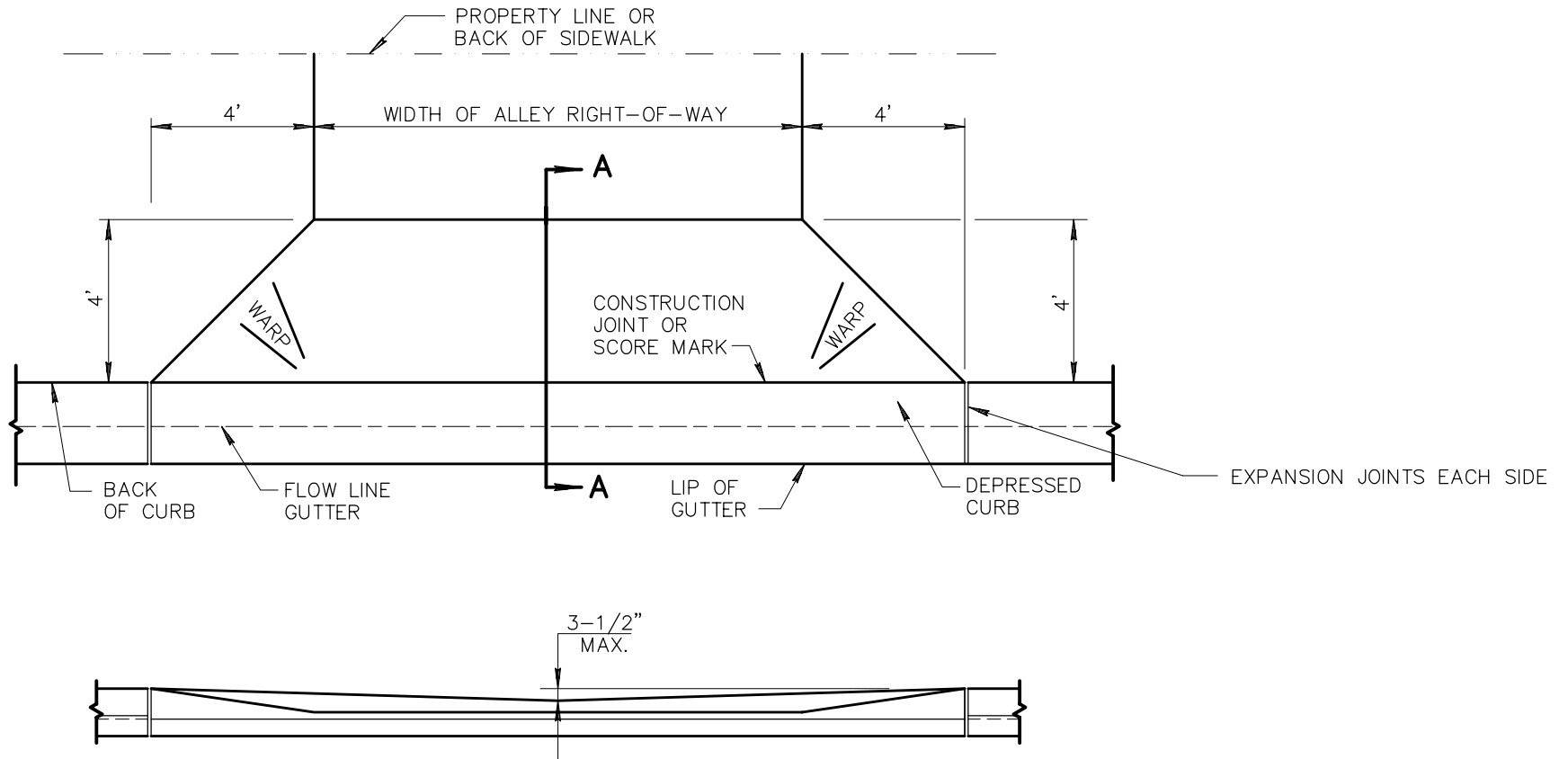
REVISED

01-01-2003

DETAIL NO.

**261**

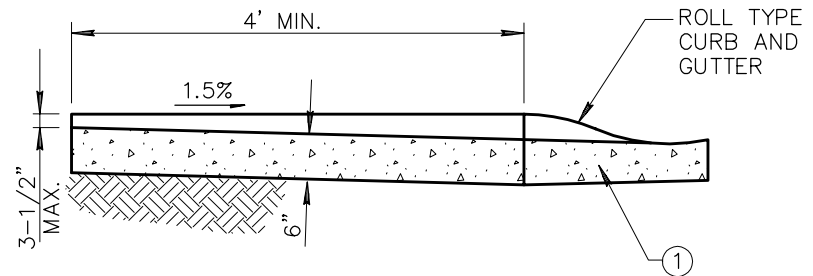




ELEVATION

NOTES:

1. CLASS 'B' CONCRETE CONSTRUCTION PER SECT. 725.
2. EXPANSION JOINTS SHALL CONFORM TO SECT. 340.
3. SUBGRADE PREPARATION PER SECTION 301.



SECTION A-A

DETAIL NO.

**263**



**STANDARD DETAIL  
ENGLISH**

**WING TYPE ALLEY ENTRANCE  
(WITH ROLL TYPE CURB AND GUTTER)**

REVISED

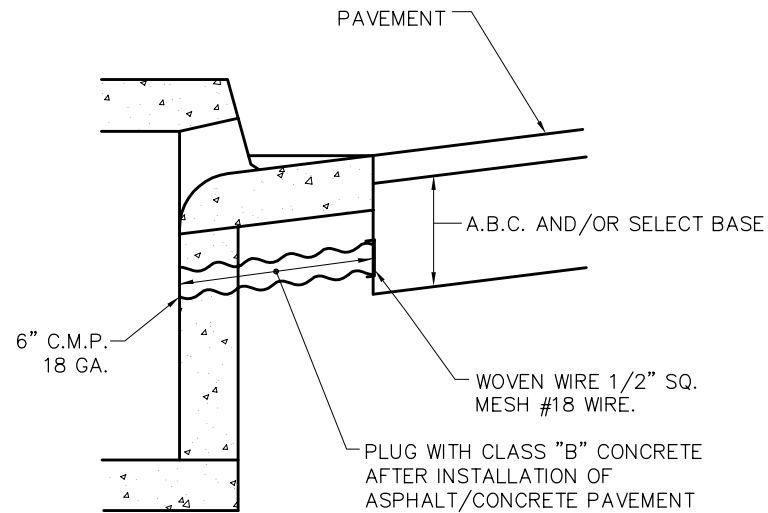
01-01-2002

DETAIL NO.

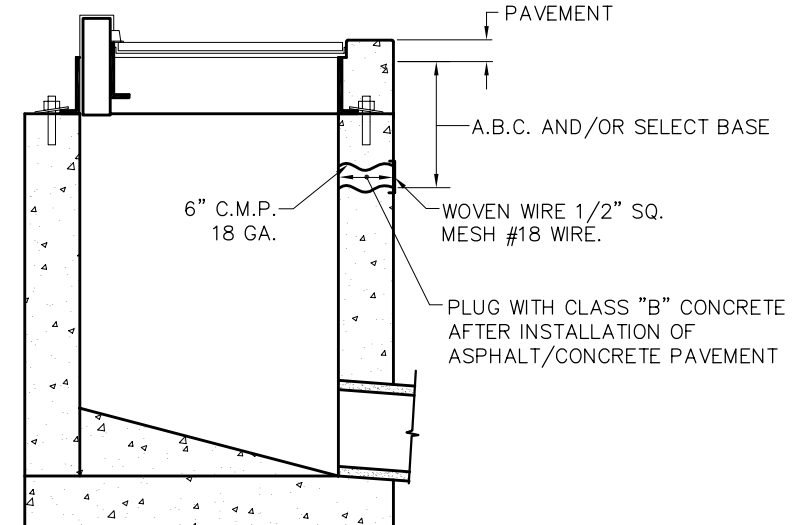
**263**

## NOTES:

1. INSTALL WHEN REQUIRED BY PLANS, SPECIFICATIONS, OR APPROVED BY THE ENGINEER.
2. SEE PROJECT PLANS FOR CATCH BASIN DETAILS AND PAVEMENT STRUCTURAL SECTION.



CURB OPENING INLET



GRATE OPENING INLET

DETAIL NO.

541



MARICOPA  
ASSOCIATION of  
GOVERNMENTS

STANDARD DETAIL  
ENGLISH

CATCH BASIN SUBGRADE DRAIN

REVISED

01-01-2005

DETAIL NO.

541

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